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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,341	10/07/2003	Chiaki Kubota	243767US90X	2655

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EXAMINER
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COZART, JERMIE E

ART UNIT	PAPER NUMBER
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3726

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/679,341	<b>Applicant(s)</b> KUBOTA, CHIAKI	
	<b>Examiner</b> Jermie Cozart	<b>Art Unit</b> 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-6 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 07 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-6 in the reply filed on 9/22/05 is acknowledged. The traversal is on the ground(s) that the subject matter of the groups of claims would be part of an overlapping search and therefore not a serious burden on the Examiner. This is not found persuasive for the reasons set forth in the restriction requirement mailed 5/25/05.

The requirement is still deemed proper and is therefore made FINAL.

### ***Information Disclosure Statement***

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

### ***Drawings***

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 33. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each

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drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The disclosure is objected to because of the following informalities: On **page 4**, *line 29*, "be" is objected to because it is grammatically incorrect in the used context, therefore it is suggested to delete "be"; On **page 6**, *line 5*, "pip" is objected to because it is the incorrect word used, therefore it is suggested to change "pip" to - pipe- -, *line 31*, "cramping" is objected to because it is the incorrect word used, therefore it is suggested to change "cramping" to - clamping- -; On **page 8**, *line 11*, it is suggested to insert - a- - after "to" in order to grammatically the associated phrase, *line 27*, "of" is objected to because it is grammatically incorrect in the used context, therefore it is suggested to change "of" to - for- -; On **page 10**, *line 28*, "a" is objected to because it is grammatically incorrect in the used context, therefore it is suggested to delete "a"; On **page 12**, *line 27*, "has are" is objected to because it is grammatically incorrect in the used context, therefore it is suggested to change "has are" to - is- -; On **page 15**, *line 4*, "lack" is objected to because it is the incorrect word used, therefore it is suggested to change "lack" to - rack- -. Appropriate correction is required.

***Claim Objections***

5. Claims 4-6 are objected to because of the following informalities: In **claim 4**, *line* 3, "performing" is objected to because it is the incorrect word used, therefore it is suggested to change "performing" to - -pre-forming- -, *line* 7, "pip" is objected to because it is the incorrect word used, therefore it is suggested to change "pip" to - -pipe- -, *line* 11, "it" is objected to because it is the incorrect word used, therefore it is suggested to change "it" to - -its- -; In **claim 5**, *line* 7, "bare" is objected to because it is the incorrect word used, therefore it is suggested to change "bare" to - -bar- -; In **claim 6**, *line* 3, "cramping" is objected to because it is the incorrect word used, therefore it is suggested to change "cramping" to - -clamping- -. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2 and 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claim 2 recites the limitation "said adjustment step" in lines 1-2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 4 recites the limitation "the hollow cavity" in line 12 of the claim. There is insufficient antecedent basis for this limitation in the claim.

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10. Claim 4 recites the limitation "the inner diameter cavity" in lines 17-18. There is insufficient antecedent basis for this limitation in the claim.
11. Claim 5 recites the limitation "toothed portion" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 6 recites the limitation "the rack" in lines 4-5 of the claim. There is insufficient antecedent basis for this limitation in the claim.
13. Claim 6 recites the limitation "the toothed portions" in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Oka et al. (US 2001/0006000 A1).

Oka discloses for forging a hollow rack bar from a metal blank pipe (3), comprising (a) subjecting the blank pipe to a plastic deformation process (paragraph [0015]) for an adjustment of a cross-sectional shape of the metal blank pipe; (b) holding the adjusted metal blank pipe by a die having toothed portions so that the toothed portions are contacted with the blank pipe at its outer surface (paragraph [0016]), and (c) inserting, under a pressure, a mandrel (12) into the blank pipe (3) held

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by the die (5, 6, 11) for causing the metal to be flown toward toothed portions, thereby forming on the outer surface of the blank pipe toothed portions having shapes corresponding to those of the toothed portions of the die. The adjusting step adjusts the cross-sectional shape of the blank pipe to a predetermined shape (i.e. a flat surface on the pipe 12, fig. 1). The step subjecting the blank pipe (3) to a plastic deformation process for an adjustment of a desired cross-sectional shape of the metal blank pipe comprises subjecting the blank pipe to swaging process (paragraph [0015]) for reducing the diameter of the blank pipe, and subjecting the swaged pipe to an ironing process (paragraph [0015], lines 14-24) for producing a desired cross-sectional shape of the blank pipe. *See paragraphs [0014] – [0019], and figures 1-5 and 7 for further clarification.*

Oka discloses for forging a hollow rack bar from a metal blank pipe (3), comprising a pre-forming step (paragraph [0015]) and a main forming step (paragraph [0016]) after the execution of the pre-forming step, the pre-forming comprises the steps of: (a) subjecting the blank pipe to swaging process for reducing the diameter of the blank pipe; (b) clamping the swaged blank pipe by a clamping die (5, 6) of a desired shape at the outer periphery thereof, while locating a working core (10) inside the blank pipe, and; (c) withdrawing the working core (10) so that the blank pipe is swaged at its inner diameter side, thereby generating a desired shape of the hollow cavity of the blank pipe (3) extending in an axial and radial directions; the main forming comprises the steps of: (d) holding the pre-formed blank pipe from its outer side by a rack forming die (5, 6, 11) having toothed portions; and (e) inserting, under a pressure, a mandrel (12) to the inner diameter cavity of the blank pipe, thereby

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forming on the outer surface of the blank pipe, toothed portions having shapes corresponding to those of the rack forming die (5, 6, 11). *See paragraphs [0014] – [0019], and figures 1-5 and 7 for further clarification.*

Oka discloses for forging a hollow rack bar from a metal blank pipe (3), wherein the blank pipe (3) is, from its outer side, held by a rack forming die (5, 6, 11), and a mandrel (12) is inserted to the blank pipe (3) under a pressure, thereby forming a hollow rack bar having shape corresponding to toothed portion of the rack forming die, the improvement wherein prior to the forging of the hollow rack bar, the blank pipe is subjected to a plastic deformation process (paragraph [0015]) for obtaining an adjustment of the cross-sectional shape of the blank pipe. *See paragraphs [0014] – [0019], and figures 1-5 and 7 for further clarification.*

Oka discloses forging a hollow rack bar from a blank metal pipe (3), comprising the steps of: (a) holding the blank pipe by means of a clamping die (5, 6, 11) having, at its inner periphery, toothed portion for forming the rack, and (b) inserting, at a pressure, a mandrel (12) into the blank pipe (3), while, during the insertion, the mandrel causes the metal to be subjected to simultaneous expanding functions at different locations of the toothed portions along the longitudinal direction, thereby forging the blank pipe to a hollow rack bar. *See paragraphs [0014] – [0019], and figures 1-5 and 7 for further clarification.*

### **Conclusion**

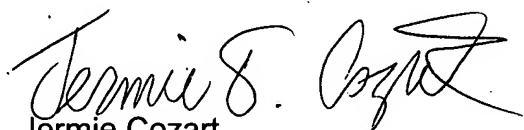
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the attached PTO-892 are cited to show the formation of hollow rack bars.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermie Cozart whose telephone number is 571-272-4528. The examiner can normally be reached on Monday-Thursday, 7:30 am - 6:00 pm.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on 571-272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jermie Cozart  
Examiner  
Art Unit 3726